Abstract: Morton's neuroma is a benign neuroma of an intermetatarsal plantar nerve, most commonly of the third and fourth intermetatarsal spaces. A 21-year-old male, was diagnosed as having a Morton's neuroma in 1st and 2nd interdigital spaces and it is rare cause of forefoot swelling. Careful history and clinical examination is essential to establish the diagnosis. However, if the clinical picture is doubtful, radiological investigation is recommended. Ultrasound, in the hand of an experienced radiologist, is the modality of choice. MRI was taken for further evaluation. Patients must be counseled preoperatively. The success of neurectomy rarely exceeds 83. When surgery is considered, the dorsal approach is associated with less wound complications than the plantar approach. The neuroma is resected as proximally as possible in order to include plantar digital branches. Surgical treatment of the Morton's neuroma should be considered once the conservative methods have failed. Surgical removal of the neuroma is associated with good patient satisfaction and functional outcome. Persistent or recurrent pain, post-operative infections and swelling along with numbness after excision of the neuroma present a challenging problem for both the surgeon and patient. It is therefore essential to have a detailed pre-operative discussion with the patient about these potential complications.

Keyword: Morton's neuroma uncommon location forefoot swelling

AIM OF THE STUDY: The aim of reporting this case is to emphasize that it is rarely located in 1st and 2nd interdigital spaces and rare cause of forefoot swelling and also evaluate functional outcome.

INTRODUCTION
Morton's neuroma (also known as Morton's metatarsalgia, Morton's neuralgia, plantar neuroma and intermetatarsal neuroma) is a benign neuroma of an intermetatarsal plantar nerve, most commonly of the third and fourth intermetatarsal spaces. It is a common cause of burning foot pain and tingling sensation at the base of toes. Its prevalence...
varies with different populations and found in 10% of feet worldwide and is more common in females with female-to-male ratio of 5:1. It usually occurs in middle-aged individuals and approximately 30% of asymptomatic middle-aged persons have the radiological / Pathologic findings of Morton’s neuroma. The exact etiology of the condition is not clearly understood. It is caused by perinural fibrosis of a digital nerve leading to an abnormal growth. It can occur between any toes with either foot, but most commonly occurs between the third and fourth toes. The condition is uncommon in first and fourth web space and an alternative diagnosis should be considered with this presentation. Morton’s neuroma if not treated can become a disabling condition. It can lead to foot, knee, hip and back problems by affecting the normal gait pattern. The pain of Morton’s neuroma is mainly over the metatarsal head on the planter surface of the foot. It radiates to the toes and often associated with numbness distal to the metatarsal head. Clinical examination will demonstrate considerable tenderness over the involved web space. Mulder in 1951 described a clinical test to diagnose Morton’s neuroma. We are reporting a case of Morton’s neuroma in 1st & 2nd interdigital spaces and it is a rare cause of forefoot swelling.

MATERIALS & METHODS
A 21 yr old, Mr. RAJA, presented with complaints of pain on weight bearing (occasionally radiating to toes) and swelling over dorsum of forefoot for 3 months without history of trauma and fever. Initially plain X-ray was taken, it was normal. Then ultrasound was taken, it shows ovoid hypo echoic mass. Then we did MRI and it shows soft tissue swelling in 1st and 2nd interdigital spaces. Blood investigations were normal.

PROCEDURE
Then we proceeded with excision through dorsal approach in 2nd interdigital spaces and specimen sent for HPE. They reported that nerve fibers encapsulated within the fibromyxoid connective tissue and suggested as a neuroma (Morton’s).

POST OP CARE
Neuralgic pain and swelling disappears within few days. The stitches removed after ten days. Full weight bearing allowed only after fourteen days. Hot and cold contrast baths, with exercises for foot and leg for a further fortnight in order to control the post operative swelling and stiffness.
PLAIN X-RAY: AP VIEW & OBLIQUE VIEW

MRI: DUMBBELL SHAPED SWELLING IN 1ST & 2ND SPACE

ULTRASONAGRAM SHOWS HYPOECHOIC OVOID MASS

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PEROPERATIVE PHOTOGRAPH

EXCISED MASS NERVE FIBERS ENCAPSULATED WITHIN FIBROMYXOID CONNECTIVE TISSUE WITH PERINEURAL FIBROSIS

DISCUSSION
Durlacher first reported Morton’s neuroma in the literature in 1845. However the disease itself was not popular until described by Sir Thomas Morton in 1876 as painful condition of the foot. The planter nerve within the foot lies between the deep transverse metatarsal ligaments and the plantar skin in close proximity of the lumbrical muscle and the flexor tendon. The nerve divides into the planter digital nerves as it passes underneath the ligament. The planter digital nerves supply sensations to the sides of the adjacent toes in the interdigital space. It is the entrapment and irritation of the planter digital nerve underneath the deep transverse metatarsal ligaments that give rise to the symptoms when they pass into the toes. The space between third and the fourth metatarsal is the most frequent location involved; however it can occur in any metatarsal space. Surgery is the essential treatment of Morton’s neuroma and surgical removal of the neuroma is associated with the best outcome. The dorsal approach however technically difficult but is associated with less local complications like wound dehiscence, haematoma and infection. Our study also shows that there is significant reduction in persistent pain after the surgical excision of Morton’s neuroma.

CONCLUSION
Morton’s neuroma is a disabling condition. Careful history, thorough clinical examination and a high index of suspicion allow the clinician to make a definitive diagnosis. Ultrasound examination helps to confirm the clinical diagnosis. Surgical treatment of the Morton’s neuroma should be considered once the conservative methods have failed. Surgical removal of the neuroma is associated with good patient satisfaction and functional outcome. Persistent or recurrent pain, post-operative infections and swelling along with numbness after excision of the neuroma present a challenging problem for both the surgeon and patient. It is therefore essential to have a detailed pre-operative discussion with the patient about these potential complications.

KEYWORDS
Morton’s neuroma uncommon location forefoot swelling

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